

CLAIMS

1 (Currently Amended). A method for controlling access to at least one cellular radio communication system through a wireless local area network ~~(20)~~, the cellular system having a radio access network ~~(15)~~ comprising base stations ~~(17)~~ and a controller ~~(16)~~ to which said wireless network is linked, the method comprising the steps of:

- authenticating a terminal ~~(18)~~ with the cellular system through the radio access network;
- allocating an authentication token to said terminal;
- transmitting the allocated token from the controller to the terminal through the radio access network;
- transmitting the allocated token and an identifier of the terminal from the controller to an authentication server ~~(32)~~ accessible through said wireless network; and
- authenticating the terminal with the wireless network by verifying that the terminal possesses the token transmitted to said authentication server.

2 (Currently Amended). The method as claimed in claim 1, wherein the allocation of the authentication token is performed by the controller ~~(16)~~.

3 (Currently Amended). The method as claimed in claim 2, wherein terminals adapted to the cellular system each transmit a respective list of features to the controller ~~(16)~~, and wherein the allocation of an authentication token to a terminal ~~(18)~~ authenticated with the cellular system is performed on condition that the list transmitted by said

terminal indicates a capability to access the wireless network (20).

4 (Currently Amended). The method as claimed in claim 1 ~~any one of the preceding claims~~, wherein the authentication token is allocated temporarily to the terminal (18).

5 (Currently Amended). The method as claimed in claim 1 ~~any one of the preceding claims~~, wherein the authentication token is transmitted to the terminal (18) with identification information pertaining to the wireless local area network (20).

6 (Currently Amended). The method as claimed in claim 5, wherein the wireless local area network (20) to which said identification information pertains is selected on the basis of a locating of the terminal (18) in the radio access network (15).

7 (Currently Amended). The method as claimed in claim 1 ~~any one of the preceding claims~~, wherein the wireless network (20) is linked to the controller (16) through an IP network (21).

8 (Currently Amended). The method as claimed in claim 7, wherein the authentication token is transmitted to the terminal (18) with addressing information in said IP network (21).

9 (Currently Amended). The method as claimed in claim 8, wherein said addressing information comprises an IP subnetwork broadcasting address employed by the controller (16) to broadcast system information through the wireless local area network (20).

10 (Currently Amended). The method as claimed in claim 8 ~~or 9~~, wherein the authentication server ~~(32)~~ is a server of said IP network ~~(21)~~, and wherein said addressing information comprises an IP address of the authentication server.

11 (Currently Amended). The method as claimed in claim 8 ~~any one of claims 8 to 10~~, wherein said addressing information comprises an IP address of the controller ~~(16)~~.

12 (Currently Amended). A controller for a radio access network ~~(15)~~ of a cellular radio communication system, comprising:

- means for interfacing with at least one base station ~~(17)~~ of the cellular system;
- means for interfacing with a wireless local area network ~~(20)~~;
- means for allocating an authentication token to a terminal ~~(18)~~ authenticated with the cellular system through the radio access network;
- means for transmitting the allocated token to the terminal through the radio access network; and
- means for transmitting the allocated token and an identifier of the terminal to an authentication server ~~(32)~~ accessible through said wireless network, so that the terminal is authenticated with the wireless network by verification that the terminal possesses the token transmitted to said authentication server.

13 (Currently Amended). The controller as claimed in claim 12, comprising means for receiving a respective list of features of a terminal adapted to the cellular system, and wherein the means for allocating an authentication token to a terminal ~~(18)~~ authenticated with the cellular system are activated on condition that the list transmitted by said

terminal indicates a capability to access the wireless network ~~(20)~~.

14 (Currently Amended). The controller as claimed in claim 12 ~~or 13~~, wherein the authentication token is allocated temporarily to the terminal ~~(18)~~.

15 (Currently Amended). The controller as claimed in claim 12 ~~any one of claims 12 to 14~~, wherein the authentication token is transmitted to the terminal ~~(18)~~ with identification information pertaining to the wireless local area network ~~(20)~~.

16 (Currently Amended). The controller as claimed in claim 15, wherein the wireless local area network ~~(20)~~ to which said identification information pertains is selected on the basis of a locating of the terminal ~~(18)~~ in the radio access network ~~(15)~~.

17 (Currently Amended). The controller as claimed in claim 12 ~~any one of claims 12 to 16~~, wherein the means for interfacing with the wireless local area network ~~(20)~~ comprise an IP interface.

18 (Currently Amended). The controller as claimed in claim 17, wherein the authentication token is transmitted to the terminal ~~(18)~~ with IP addressing information.

19 (Currently Amended). The controller as claimed in claim 18, wherein said addressing information comprises an IP subnetwork prefix employed to broadcast system information through the wireless local area network ~~(20)~~.

20 (Currently Amended). The controller as claimed in claim 18 ~~or 19~~, wherein said addressing information comprises an IP address of the authentication server ~~(32)~~.

21 (Currently Amended). The controller as claimed in claim 18 ~~any one of claims 18 to 20~~, wherein said addressing information comprises an IP address of the controller ~~(16)~~.